



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

PUBLIC HEALTH REPORTS

VOL. 32

JULY 13, 1917

No. 28

TRACHOMA AND THE ARMY.

THE DANGERS INCIDENT TO ENLISTING RECRUITS AFFECTED WITH THE DISEASE.

By JOHN McMULLEN, Surgeon, United States Public Health Service.

Now that our country is engaged in raising a great army, it is our duty to prevent the admission to the Army of recruits who may spread disease.

The history of European wars shows that trachoma has been a grave menace to the efficiency of the fighting forces, invaliding thousands of men and blinding large numbers of its victims. So great has been the prevalence in the armies that trachoma was at one time termed "military ophthalmia" and believed to be confined to soldiers. Various articles of their equipment were condemned as being the cause of the disease.

Trachoma has been said to be "as old as the Nile, the simoom, and the desert." It has an historical importance as an epidemic disease of both military and civil life and has made fearful ravages in practically every European country.

Despite the confusing and contradictory statements in connection with trachoma, the contagious character of this disease is unquestionable.

During the first half of the nineteenth century 1 soldier in every 5 of the Belgian Army is said to have suffered from trachoma. It is alleged that upon the recommendation of a noted authority at that time the trachomatous soldiers were discharged from the army to their homes. This procedure cleared the army of trachoma at that particular time, but carried the disease directly to the homes and the civilian population, where it previously did not exist. This removed all doubt as to the contagiousness of trachoma, which at that time was denied by some, and subsequent cases in the army were isolated in special hospitals, which caused a diminution in the disease.

It is stated that in some countries there were frightful epidemics of trachoma, and that the English, Prussian, Russian, and other armies suffered from the ravages of this disease.

During the Russo-Japanese War trachoma was a formidable enemy to be reckoned with in the Japanese Army and large numbers of troops were isolated and treated for this malady.

Some months since it was reported that an epidemic of trachoma was causing considerable anxiety in France, the disease having been brought to that country by African soldiers and laborers. In the army the disease was checked by the quick isolation of all victims and other drastic measures. Among the civilian population, however, the epidemic was still spreading, especially in the larger cities, and the health authorities were taking every precaution. All persons whose eyes showed any inflammation were examined by specialists and isolated if suspicious.

Statistics from the medical inspection of aliens at United States ports indicate that trachoma is found most extensively among the Syrian, Armenian, Hebrew, Italian, Polish, and Greek races. Trachoma, however, extends more or less over the whole world and exists in many places in the United States as an endemic disease. Lasting as it does for years, it is a constant irritation and discomfort to the patient, impairing his earning capacity and efficiency as a workman and soldier, ruining the life and happiness of entire families and finally terminating in many instances in total blindness. After nearly a lifetime of misery the patient is often seen dwarfed in mind and warped in body with the trichiasis, entropion, and other sequelæ still remaining to harass and irritate the now sightless eyes.

Several years ago the Public Health Service instituted an investigation into the prevalence of trachoma in the United States. Investigations were made among the Indians, and the residents of the Appalachian Mountain range and other sections of the country. The Indians were found to be almost universally infected and on some reservations 90 per cent had trachoma. This survey showed that the disease exists more or less throughout "Appalachian America" and, in some portions the infection was found to be as high as 10 to 12 per cent of the population and in some communities even a higher rate of infection was found. In sections of Minnesota trachoma was found. The disease is also reported from Ohio, Indiana, Kansas, and other States. In fact, it is found to be widely distributed in our country. It is not an uncommon thing to see in one family several generations with trachoma. So prevalent and widespread is the infection in some sections of the United States that the Public Health Service has established and maintains in those sections six ophthalmic hospitals for the treatment of trachoma, which is classed by the Government as a dangerous contagious disease.

These hospitals have now been in operation for several years and, during the past year, a total of 19,530 patients were treated; 1,880

patients were admitted to the hospitals and 1,687 operations were performed. Of this number, 1,153 were under local and 534 under general anesthesia. The records show that at least one-half of our trachoma patients have impairment of vision, ranging all the way from slight defects to total blindness. Ulcer and corneal opacity occur in 25 per cent of the cases; pannus is present in 20 per cent; and photophobia was recorded in $33\frac{1}{2}$ per cent; entropion and trichiasis in 10 to 15 per cent of the cases. Entire families are found suffering from trachoma, including both extremes of life.

The diagnosis of trachoma is still based on clinical evidence, since the causal organism is as yet unknown. Diagnosis, therefore, is in many cases difficult. There are many cases which are found only by careful examination as but few if any symptoms may be present at the time of examination and the condition may be said to be latent or dormant. Sooner or later, however, by reason of a foreign body or other excitant, there arises a condition analogous to acute granulations with the watery secretion so characteristic of the disease and the other familiar symptoms. In this stage the disease is highly infectious.

Trachoma is transmitted from the sick to the well by the secretion which is conveyed to the healthy eye by means of such infected articles as towels, handkerchiefs, bed linen, etc.

Like most communicable diseases, trachoma spreads where people are crowded together, as in barracks, penal establishments, orphan asylums, etc.

Armies originally get trachoma from the infected civil population in the areas from which recruits are accepted, and give it back to the people, often with interest, when men are discharged who have served their enlistment or become incapacitated.

Trachoma is essentially a chronic disease, and untreated lasts ordinarily the better part of a lifetime. It is a surgical affection and, if anything like satisfactory or permanent results are to be obtained, it must be by properly and skillfully conducted surgical proceedings, and, in many cases, hospital care.

With the proper surgical procedure followed by the after care and treatment, any case of trachoma can be cured, the length of time required to effect a cure depending upon its duration, severity, and other factors. In children, when seen early, the disease is usually readily eradicated and they can return to school in a short time. While occasionally cases of trachoma continue for years with but comparatively small damage to the cornea, others produce corneal complications early and persistently and the eye is lost in a short time.

The results that are being obtained in the 6 Public Health Service trachoma hospitals are exceedingly satisfactory. During the past

fiscal year about 1,500 cures have been effected. Adults who have suffered from trachoma for years and were dependent upon their friends or the county for support, some being inmates of the poorhouse, have been relieved, are no longer foci of infection, have taken their places in the community, and are earning a livelihood for themselves and family. Children unable to attend school because of the constant physical suffering and impaired vision are now securing the education which would have been impossible but for timely interference.

There is no lack of evidence that we have a great deal of trachoma in this country, and that it is a public health problem to be dealt with before the disease establishes foci everywhere.

As previously stated, trachoma often exists in a latent or dormant stage, and there is grave danger that recruits may be enlisted suffering with this disease unless the greatest care is exercised.

The eyelids of all soldiers and applicants for enlistment should in every instance be everted, the examination to include the retrotarsal fold, and the condition of the membranes noted in a space on the blank form reserved for this purpose. If the eyelids are not smooth and pink, if there is any redness or secretion, especially in the retrotarsal fold, such cases should be segregated for examination by those trained in the diagnosis of trachoma. An applicant who is found to be suffering with a well-marked trachoma, should not be immediately rejected, but should be given treatment and his trachoma cured. He can then be again examined to determine whether he has resulting visual defects sufficient to cause his rejection. In this way a case of contagious disease will be eliminated and probably a good soldier gained.

Any case of trachoma or suspected trachoma detected among soldiers or sailors should be immediately isolated under care and treatment until cured or until the suspected diagnosis is found to be in error.

POLIOMYELITIS IN JAPAN.

The following information regarding the occurrence of poliomyelitis in Japan has been furnished by the American consul general and was obtained through the courtesy of the Japanese authorities and medical men. While the data are essentially fragmentary, as is true for this disease in most countries, they show that poliomyelitis has been present in Japan and in a measure the degree of the prevalence.

Reports made to the section of pediatrics of the Fourth General Congress of the Japanese Medical Association give the following frag-